

Remarks

The Office action mailed April 18, 2006, has been reviewed and carefully considered. Claims 40-95 have been canceled without prejudice toward filing a divisional application(s). New claims 96-111 have been added. Entry of the new claims is respectfully requested.

Restriction Requirement

New method claims 96-99 recite a method of using the solid oxide fuel cell of claim 1. Accordingly, method claims 96-99 are entitled to rejoinder in the present application under MPEP §821.04 when claim 1 is found allowable.

35 U.S.C. §102 Rejections

Claims 1-11, 15, 16, 18 and 19 have been rejected under 35 U.S.C. §102(e) over Tao et al. (US 2002/0015871). The cathode layer presently recited in claim 1 comprises a copper-substituted ferrite perovskite material. Tao et al. discloses a cathode composition that can be made from a material having a perovskite structure. In one example, the perovskite material can have the composition " $\text{La}_x\text{Mn}_y\text{A}_a\text{B}_b\text{C}_c\text{O}_d$ where A is an alkaline earth metal, B is selected from the group consisting of scandium, yttrium, and a lanthanide metal, C is selected from the group consisting of titanium, vanadium, chromium, iron, cobalt, nickel, copper, zinc, zirconium, hafnium, aluminum and antimony." (paragraph [0076]). The generic formula listed in Tao et al. covers hundreds, if not thousands, of possible specific compositions. But there is no teaching in Tao et al. of a specific composition that includes **both** iron and copper as required for anticipation of claim 1 (see MPEP §2131.02).

Tao et al. does not disclose any specific composition that includes **both** iron and copper. Moreover, a copper-substituted ferrite perovskite composition could not be "at once envisaged" (see MPEP §2131.02) from the disclosure in Tao et al. Tao et al. discloses about 20 specific perovskite cathode compositions, but none of them include both iron and copper. Most importantly, none of them even include copper at all. Iron and copper are each individually

generally identified as possibilities for constituent C, but there is no suggestion in Tao et al. that iron and copper should both be included as components of the perovskite composition.

Accordingly, the pending 35 U.S.C. §102(e) rejection of claims 1-11, 15, 16, 18 and 19 over Tao et al. must be withdrawn.

35 U.S.C. §103 Rejections

Claim 12 has been rejected under 35 U.S.C. §103 over Tao et al. combined with Seabaugh et al. The examiner recognizes that Tao et al. does not teach an interlayer, and relies upon Seabaugh et al. for such teaching. However, as explained above, Tao et al. lacks a teaching of the subject matter of base claim 1 and Seabaugh et al. does not compensate for the fatal deficiency in Tao et al. Accordingly, the pending 35 U.S.C. §103 rejection of claim 12 over Tao et al. combined with Seabaugh et al. must be withdrawn.

Claims 13 and 14 have been rejected under 35 U.S.C. §103 over Tao et al. combined with Sarkar et al. The examiner recognizes that Tao et al. does not teach any specific layer thicknesses, and relies upon Sarkar et al. for such teaching. However, as explained above, Tao et al. lacks a teaching of the subject matter of base claim 1 and Sarkar et al. does not compensate for the fatal deficiency in Tao et al. Accordingly, the pending 35 U.S.C. §103 rejection of claims 13 and 14 over Tao et al. combined with Sarkar et al. must be withdrawn.

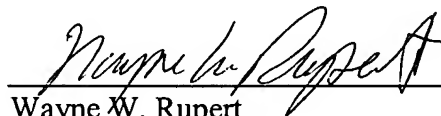
Claim 17 has been rejected under 35 U.S.C. §103 over Tao et al. combined with Wallin et al. The examiner recognizes that Tao et al. does not teach a cathode layer comprising a substantially homogeneous mixture of a copper-substituted ferrite material and a finely-divided form of a second material, and relies upon Wallin et al. for such teaching. However, as explained above, Tao et al. lacks a teaching of the subject matter of base claim 1 and Wallin et al. does not compensate for the fatal deficiency in Tao et al. Accordingly, the pending 35 U.S.C. §103 rejection of claim 17 over Tao et al. combined with Wallin et al. must be withdrawn.

It is respectfully submitted that the present application is in condition for allowance.
Should there be any questions regarding this application, Examiner Lewis is invited to contact
the undersigned attorney at the telephone number shown below.

Respectfully submitted,

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